

Language learning, language use, and the evolution of linguistic variation

Kenny Smith, Centre for Language Evolution, University of Edinburgh

Languages are shaped by their learning and use. We learn language by observing the linguistic behavior of our speech community, and in using our language to communicate we produce data which others learn from. Linguistic variation has recently become a test-case for exploring how biases inherent in these processes of learning and use impact on the structure of language. While language exhibits variation on all levels, that variation is not unconstrained: usage of alternate forms is conditioned in accordance with phonological, semantic, pragmatic or sociolinguistic criteria. I will review experimental paradigms in which participants learn artificial languages exhibiting variation, use those languages to communicate with other participants (interacting in pairs or small social groups in the lab), and produce linguistic data for other individuals to learn from (using iterated learning, where the language produced by one participant becomes the target for learning in another participant). This work shows how complex interactions between learning, use, and transmission serve to preserve, condition, or eliminate variation in artificial linguistic systems. More generally, this work speaks to constraints on variation within and across natural languages, and the mechanisms which shape the structure of human language.